# Translation

#### ATENT COOPERATION TREATY

## PCT/JP2002/011785

### **PCT**

#### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference F-1521	FOR FURTHER ACT	ACTION SeeNotificationofTransmittalofInternational Preliminary Examination Report (Form PCT/IPEA/416)		
International application No.	International filing date	(day/month/year)	Priority date (day/month/year)	
PCT/JP02/11785	12 November 20	02 (12.11.02)	06 June 2002 (06.06.02)	
International Patent Classification (IPC) or national classification and IPC C07B 59/00 // C07M 5:00				
Applicant WAK	O PURE CHEMICA	L INDUSTRIES	, LTD.	
<ol> <li>This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</li> </ol>				
2. This REPORT consists of a total of	4 sheets, i	including this cover s	heet.	
This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).				
These annexes consist of a to	otal ofst	heets.		
3. This report contains indications rela	ating to the following item	ns:		
I Basis of the report	I Basis of the report			
II Priority				
III Non-establishment	of opinion with regard to	novelty, inventive st	ep and industrial applicability	
IV Lack of unity of inv	IV Lack of unity of invention			
Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
VI Certain documents	VI Certain documents cited			
VII Certain defects in t	he international application	on		
VIII Certain observations on the international application				
Date of submission of the demand  Date of completion of this report			of this report	
20 March 2003 (20.03.03)		20 No	ovember 2003 (20.11.2003)	
Name and mailing address of the IPEA/JP		Authorized officer		
Facsimile No.		Telephone No.		

#### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

	Interna	application No.
1	PC	CT/JP02/11785

I. Basis	I. Basis of the report				
1. With regard to the elements of the international application:*					
$\bowtie$	the international application as originally filed				
	the description:				
	pages	, as originally filed			
		, filed with the demand			
	pages, filed with the letter of				
	the claims:				
		, as originally filed			
	pages, as amended (together with an				
	pages, to the control of the	, filed with the demand			
	pages, filed with the letter of				
	the drawings:	, as originally filed			
1	pages				
	pages	, filed with the demand			
	pages, filed with the letter of				
	the sequence listing part of the description:				
	pages	, as originally filed			
		, filed with the demand			
Ì	pages, filed with the letter of				
the i	2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  These elements were available or furnished to this Authority in the following language which is:				
	the language of a translation furnished for the purposes of international search (under Rule 23.1	(b)).			
	the language of publication of the international application (under Rule 48.3(b)).				
	the language of the translation furnished for the purposes of international preliminary examinary or 55.3).	nation (under Rule 55.2 and/			
3. With	th regard to any nucleotide and/or amino acid sequence disclosed in the international a iminary examination was carried out on the basis of the sequence listing:	application, the international			
	contained in the international application in written form.				
	filed together with the international application in computer readable form.				
∐	furnished subsequently to this Authority in written form.				
	furnished subsequently to this Authority in computer readable form.				
	The statement that the subsequently furnished written sequence listing does not go be international application as filed has been furnished.	eyond the disclosure in the			
	The statement that the information recorded in computer readable form is identical to the been furnished.	written sequence listing has			
4.	The amendments have resulted in the cancellation of:				
	the description, pages				
	the claims, Nos.				
	the drawings, sheets/fig				
5. 🔲	This report has been established as if (some of) the amendments had not been made, since the beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**	y have been considered to go			
in th	* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).				
** Any	replacement sheet containing such amendments must be referred to under item 1 and annexed to t	his report.			
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#### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability			
1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:			
	the entire international application.		
$\boxtimes$	claims Nos. 8		
becaus	e:		
	the said international application, or the said claims Nos	amination <i>(specify):</i>	
	the description, claims or drawings (indicate particular elements below) or said claims Nos. are so unclear that no meaningful opinion could be formed (specify):		
	the claims, or said claims Nos	are so inadequately supported	
$\boxtimes$	no international search report has been established for said claims Nos.	8	
2. A mea sequer	ningful international preliminary examination cannot be carried out due to the failure of the later listing to comply with the standard provided for in Annex C of the Administrative Instruction the written form has not been furnished or does not comply with the standard.  the computer readable form has not been furnished or does not comply with the standard.	ne nucleotide and/or amino acid tions:	

V.	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability
	citations and explanations supporting such statement

1.	Statement			
	Novelty (N)	Claims	1-7	YES
	1101019 (11)	Claims		NO NO
	Inventive step (IS)	Claims	1-7	YES
	Miseumse sich (172)	Claims		NO
	Industrial applicability (IA)	Claims	1-7	YES
	The state of the s	Claims		NO

#### Citations and explanations

Document 1: JP 63-198638 A (Hoechst AG), 17 August 1988 & EP 276675 A2 & DE 3701302 A1 & CN 88100364 A

Document 2: EP 203588 A2 (Mitsubishi Rayon Co., Ltd.), 3

December 1986 & JP 61-275241 A & DE 3689206

A1 & NO 862126 A & CA 1265814 A & US 5221768

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Document 3: JP 10-139694 A (Dainippon Ink and Chemicals, Inc.), 26 May 1998 (Family: none)

Claims 1-7 are novel and involve an inventive step relative to documents 1-3, cited in the international search report.

Documents 1-3 do not disclose or suggest a process wherein a compound having a methyl group or alkylene group of C2 or more bound directly to an aromatic ring is placed under closed reflux in a deuterated solvent in the presence of activated palladium-carbon, in order to bring about the deuteration of hydrogen atoms.